



PHIL & ONZI

PATENTS • TRADEMARKS • COPYRIGHTS

BYUKCHON B/D. 4/5F, 1597-5, SEOCHO-DONG
 SEOCHO-KU, SEOUL 137-876, KOREA
 TEL : (82) (2) 588-5757, (82) (2) 597-2882
 FAX : (82) (2) 588-5790, (82) (2) 522-0721
 Website : <http://www.philonzi.com>
 E-mail : iplaw@philonzi.com

April 6, 2004

IPEA/KR

Korean Intellectual Property Office

920 Dunsan-dong, Seo-gu,

Daejeon 302-701

Republic of Korea

Re: **Filing of Amendment under Article 34**
 International Application No.: PCT/KR2003/001678
 Filed: 20 August 2003
 Applicant: LG Cable Ltd. et al.
 Our Ref.: PCT03-048

Dear Officers:

With the demand for international preliminary examination for the above-identified PCT application, the applicant wishes to amend a part of the specification for the international application under Article 34 as follows.

In page 18, lines 14 to 18, the paragraph "Since the optical fiber manufactured by the present invention shows an optical loss of 0.34dB/Km at a wavelength of 1280nm and an optical loss of 0.20dB/Km at a wavelength of 1620nm, it is possible to additionally obtain wavelength ranges of 1280 ~ 1310nm and 1550nm ~ 1620nm as an optical fiber usable wavelength range, compared with the conventional optical fiber" is changed into a new paragraph -- Since the optical fiber manufactured by the present invention shows an optical loss of 0.34dB/Km at a wavelength of 1280nm and an optical loss of 0.20dB/Km at a wavelength of 1550nm, so it can be used in the wavelength range from 1280nm to 1620nm.--

In page 18, lines 4 to 11, the paragraph "An optical fiber made from the optical fiber preform manufactured by the present invention shows not only an optical absorption loss lower than 0.33dB/Km at a wavelength of 1385nm but also an optical scattering loss less than 0.34dB/Km at a wavelength of 1310nm and an optical scattering loss less than 0.20dB/Km at a wavelength of 1550nm. Accordingly, the optical fiber manufactured by the present invention may be used in the wavelength ranges of 1280nm ~ 1310nm and 1550nm ~ 1620nm, which cannot be used in the prior art, so it is possible to obtain additional wavelength ranges more than 100nm." is changed into a new paragraph -- An optical fiber made from the optical fiber preform manufactured by the present invention shows not only an optical absorption loss lower than 0.33dB/Km at a wavelength of 1385nm but also an optical scattering loss less than 0.34dB/Km at a wavelength of 1310nm and an optical scattering loss less than 0.20dB/Km at a wavelength of 1550nm. Accordingly, the optical fiber manufactured by the present invention can be used in the wavelength range from 1280nm to 1620nm.--

IPEA/KR
April 6, 2004
Page 2

Enclosed please find the amended pages and substitute the Pages 18 and 19 with new ones.

Accordingly, please start the international preliminary examination on the basis of the application as amended.

Sincerely yours,

PHIL & ONZI



Sang-Woo KIM

SWK/jcl/yma
Encl.

optical fiber preform manufactured according to the prior art. In the figure, the loss at the conventional optical fiber is shown by a dotted line and the loss at the optical fiber of the present invention is shown by a solid line.

Referring to FIG. 7, it is seen that the optical fiber manufactured by the conventional MCVD shows high optical loss over the whole wavelengths, and particularly a loss at a wavelength of 1385nm is so high to be inadequate for usage. However, the optical fiber manufactured by using the improved MCVD of the present invention shows a peak of hydroxyl group absorption loss at a wavelength of 1385nm less than 0.33dB/Km, and optical losses due to the scattering at 1310nm and 1550nm are also lower than 0.34dB/Km and 0.20dB/Km respectively. Thus, it would be understood that the optical fiber manufactured using the improved MCVD of the present invention shows more improved optical transmission characteristics than a conventional signal-mode optical fiber.

Since the optical fiber manufactured by the present invention shows an optical loss of 0.34dB/Km at a wavelength of 1280nm and an optical loss of 0.20dB/Km at a wavelength of 1550nm, so it can be used in the wavelength range from 1280nm to 1620nm.

INDUSTRIAL APPLICABILITY

According to the present invention, it is possible to manufacture an optical fiber preform in which an optical absorption loss due to hydroxyl groups at a wavelength of 1385nm is reduced less than 0.33dB/Km by applying the dehydration step after the

sooting step, and contents of hydroxyl group and chlorine are lowered below 1ppb by applying the dechlorination step for removing chlorine impurities absorbed into the soot layer in the dehydration step.

5 An optical fiber made from the optical fiber preform manufactured by the present invention shows not only an optical absorption loss lower than 0.33dB/Km at a wavelength of 1385nm but also an optical scattering loss less than 0.34dB/Km at a wavelength of 1310nm and an optical scattering loss less than 0.20dB/Km at a wavelength of 1550nm. Accordingly, the optical fiber manufactured by the present invention can be used in the wavelength range from 1280nm to 1620nm.

10 The present invention has been described in detail. However, it should be understood that the detailed description and specific examples, while indicating preferred embodiments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description.